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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,382	01/05/2004	Byron Clayton	16-454	2654

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EXAMINER

VON BUHR, MARIA N

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/751,382

Applicant(s)

CLAYTON ET AL.

Examiner

Maria N. Von Buhr

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004 and 30 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20040330.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. This application is a continuation-in-part of U.S. Application Serial No. 10/646,191 and is, therefore, accorded the benefit of the earlier filing date of 22 August 2003, only for that subject matter which was originally presented in the parent application. Any previously presented rejections or objections which are not expressly repeated in this Office action are hereby withdrawn.

2. Claims 1-44 are pending in this application.

3. Examiner acknowledges receipt of Applicant's information disclosure statement, received 30 March 2004, with accompanying reference copy. This submission is in compliance with the provisions of 37 CFR §1.97. Accordingly, it has been taken into consideration for this Office action.

4. Examiner acknowledges receipt of Applicant's formal drawings. These drawings are acceptable.

5. Claims 1 and 40 are objected to, because the word "sashes" (line 8 of claim 1) has been lined through, and "herein" (line 1 of claim 40) is a misspelling. Clarification is required.

6. The following is a quotation of the second paragraph of 35 U.S.C. §112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which Applicant regards as his invention.

7. Claims 1-44 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

In claim 1, there is no clear and proper antecedent basis for "the glazing line," since a plurality have previously been provided for. Also, there seems to be no nexus between steps a-b and the remainder of the steps. No clear relationship between the runs and the component processing machines has been provided for, such that the basis for altering sequences has a clear context. This presents ambiguity with regard to the metes and bounds of the claim. This similarly applies to claims 23 and 33. Further in claim 23, there is no clear and proper antecedent basis for "the window component processing stations."

In claim 2, there is no clear and proper functional antecedence for "monitoring a status of runs of insulating glass components produced by the one or more insulating glass component processing machines," since (1) no runs of "components" has been previously provided for and (2) no such producing has been previously provided for, such that the status of such runs can be monitored.

In claim 5, there seems to be no nexus between step a and the remainder of the steps. No clear relationship between the runs and the component processing machines has been provided for, such that the basis for altering sequences has a clear context. This presents ambiguity with regard to the metes and bounds of the claim. This similarly applies to claims 24 and 34. Further in claim 24, there is no clear and proper antecedent basis for "the window component processing stations" nor "the plurality of glazing lines," while step iii seems to be incomplete (missing "status"?).

In claim 6, there is no clear and proper functional antecedence for "monitoring a status of runs of insulating glass components produced by the one or more insulating glass component processing machines," since no such producing has been previously provided for, such that the status of such runs can be monitored.

In claim 9, there is no clear and proper functional antecedence for "monitoring a number of runs of assembled insulating glass units," since no such assembling has been previously provided for, such that the number of such runs can be monitored. Also, there seems to be no nexus between step a and the remainder of the steps. No clear relationship between the runs and the glazing lines has been provided for, such that the basis for altering sequences has a clear context. This presents ambiguity with regard to the metes and bounds of the claim. In addition, step e is a mere statement of desired result, which has no clear support within the body of the claim. There is no indication of the metes and bounds of any "resolving" of the low queue condition. This additionally presents ambiguity with regard to the metes and bounds of the claim. This similarly applies to claims 25 and 35.

In claim 12, there is no clear and proper functional antecedence for "identifying runs of assembled insulating glass units that are delivered to the given glazing line," since no actual delivering of such units has been previously claimed, such that the identifying can take place. Also, there is no clear and proper functional antecedence for "identifying runs of assembled insulating glass units that are processed at the given glazing line," since no actual processing of such units has been previously claimed, such that the identifying can take place. This similarly applies to claims 27 and 36.

In claim 14, there is no clear context for the "highlighting," since no display of any information has been previously provided for. This similarly applies to claims 28 and 37.

In claims 15 and 16, it is unclear how prioritizing the "next available run" accomplishes any "altering" of the sequence of runs, since it seems that the "next available run" would be the next in sequence, regardless of it being "prioritized." Therefore, such prioritizing has no clear context, and the metes and bounds of the claim are unclear. This similarly applies to claim 29.

In claims 18 and 20, there is no clear context for the units being "required" by the given glazing line, since no requirements have been presented in the claims. In addition, the altering step is a mere statement of desired result, which has no clear support within the body of the claim. There is no indication of the metes and bounds of any producing of a prioritized run "earlier in time." This presents ambiguity with regard to the metes and bounds of the claim. This similarly applies to claims 39 and 41.

In claims 21, 32 and 42, there is no clear context for "in queue," since no queues have been previously provided for in this claim nor its parent.

In claims 22 and 43, the altering step is a mere statement of desired result, which has no clear support within the body of the claim. There is no indication of the metes and bounds of any "resolving" of the low queue condition. This presents ambiguity with regard to the metes and bounds of the claim.

In claim 44, there is no clear and proper functional antecedence for "monitoring a number of runs of completed insulating glass components," since no "completed ... components" have been previously provided for, such that monitoring of their runs can be accomplished. Also, there is no clear context for "in queue," since no queues have been previously provided for, nor for "a given type of ... component," since no definition/introduction of any "types" has been claimed. In addition, step e is a mere statement of desired result, which has no clear support within the body of the claim. There is no indication of the metes and bounds of any "resolving" of the low queue condition. This presents ambiguity with regard to the metes and bounds of the claim.

The remainder of the claims are rejected as necessarily incorporating the above-noted ambiguities of their parent claims.

8. The following is a quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-44 are rejected under 35 U.S.C. §103(a) as being unpatentable over Weaver et al. (U.S. Patent No. 5,446,671) in view of Schwaiger et al. (U.S. Patent No. 6,294,044).

As per the instant claims, Weaver et al. teach "a look-ahead method for determining optimum production schedules for each production step based on factory-wide monitoring of in-process part queues at all potential production bottlenecks. For each product having associated therewith a throughput bottleneck, a

maximum queue quantity $Q_{sub}MAX$ and a minimum queue $Q_{sub}MIN$ quantity are assigned. When a machine completes a lot of a particular product at a production step P that proceeds the bottleneck step B, the look-ahead method is initiated. The queue at step P is searched and the next lot to be processed is selected. If that lot is a product for which $Q_{sub}MAX$ and $Q_{sub}MIN$ values have been assigned at step B, then the queue quantity at step B is determined. If, on one hand, the queue quantity at step B is less than $Q_{sub}MAX$, or between $Q_{sub}MAX$ and $Q_{sub}MIN$ and the queue quantity is climbing upward from a sub- $Q_{sub}MIN$ value and has not yet exceeded its $Q_{sub}MAX$ value, then the lot is processed without further analysis. If, on the other hand, the queue quantity at step B is greater than $Q_{sub}MAX$, or between $Q_{sub}MAX$ and $Q_{sub}MIN$ and the queue quantity is descending from a quantity greater than its $Q_{sub}MAX$ and has not yet fallen below its $Q_{sub}MIN$ value, then that product has a set flag status associated therewith, and the lot will not be processed until after all other lots which have a clear flag status are processed" (the abstract; also see, at least, Figs. 3A-D, with associated text).

Although Weaver et al. teach Applicant's invention substantially as instantly claimed, with regard to the sequencing of processing runs and alteration of such sequences in response to the status of various aspects of the production facility, Weaver et al. do not specify that the production facility is one for assembling insulating glass units to window or door sashes. However, Weaver et al. do state that their system "relates to computerized manufacturing control systems and, more particularly, to systems aimed at optimizing utilization of universal equipment that feeds a production step containing one or more potential bottlenecks" (col. 1, lines 8-12). In this regard, Schwaiger et al. teach an automated production system for assembling window frames, by assembling sashes with glass units (see, at least, the abstract; col. 1, line 64 - col. 2, line 52). It would have been obvious, to one having ordinary skill in the art, at the time the instant invention was made, to utilize the scheduling system of Weaver et al. in a glass production facility such as taught by Schwaiger et al., because Weaver et al. teach a resultant benefit of decreased bottlenecks, resulting in better utilization of manufacturing resources (see, at least, col. 1, lines 15-40).

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. §103(a), Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR §1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for Examiner to consider the applicability of 35 U.S.C. §103(c) and potential 35 U.S.C. §102(e), (f) or (g) prior art under 35 U.S.C. §103(a).

11. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. Applicant is advised to carefully review the cited art, as evidence of the state of the art, in preparation for responding to this Office action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria N. Von Buhr whose telephone number is 571-272-3755. The examiner can normally be reached on M-F (9am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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